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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,466	02/25/2004	Ivan Thrall Smith	8274-020	9331
4678	7590	02/09/2007	EXAMINER	
MACCORD MASON PLLC 300 N. GREENE STREET, SUITE 1600 P. O. BOX 2974 GREENSBORO, NC 27402			JUNKER, JONATHAN T	
			ART UNIT	PAPER NUMBER
			3635	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,466	SMITH, IVAN THRALL	
	Examiner	Art Unit	
	Jonathan T. Junker	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 February 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-48 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 4/1/2004.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: Supplied Figure 1.

DETAILED ACTION

This is the first action on the merits. Claims 1-48 are pending and are examined below.

Claim Objections

Claims 4 and 28 are objected to because of the following informalities: The claims set forth the limitation of "wherein said tying structure and said top plate forms a double top plate" from this limitation it is unclear whether there is to be a second plate adjacent to a first top plate or whether the tying structure and top plate are being redefined as a double top plate. Appropriate correction is required.

Claims 20 and 43 are objected to because of the following informalities: The limitation "Type X and Type C as defined in ASTM C11" inadequately describes the type of gypsum wallboard because the standards on which the limitation depends can change over time. Appropriate correction is required.

Claim 44 is objected to because of the following informality: The limitation "gypsum wallboard conforms to ASTM C-36-96" inadequately describes the type of gypsum wallboard being claimed because the standards on which the limitation depends can change over time. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1-3 and 6-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Don et al. US Patent 6,651,393 B2.

Regarding claim 1, Don et al. discloses a structure having a fire resistance rated, area separation wall, said structure comprising: a first building unit (A Supplied Figure 1); a second building unit (B Supplied Figure 1); and a two-hour fire resistance rated, area separation wall having only outer membranes (C Supplied Figure 1). It is noted that the wall is described as being made of gypsum (164 fig 13, column 15 line 17), and gypsum is well known to have a two-hour fire resistance rating.

Regarding claim 2, Don et al. discloses the structure according to Claim 1, further including a tying (10 fig 5) structure connecting said fire resistance rated, area separation wall to said first unit and said second unit (C Supplied Figure 1). It is noted that the wall itself would tie the two structures together.

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Regarding claim 3, Don et al. discloses the structure according to Claim 2, wherein said tying structure includes a top plate (12 fig 5) attached to the top edge of said fire resistance rated, area separation wall and a bottom plate (12 fig 5) attached to the bottom edge of said fire resistance rated, area separation wall.

Regarding claim 4, Don et al. discloses the structure according to claim 3, wherein said tying structure and said top plate form s a double top plate (10 fig 5).

Regarding claim 6-11, Don et al. discloses the structure according to Claim 1 wherein first and second building units that are occupiable residential town homes (A and B Supplied Figure 1).

Claims 12-15, 19-21 and 23-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Axsom US Patent 6,901,713.

Regarding claim 12, Axom discloses a two-hour fire resistance rated, area separation wall for a structure, said area separation wall comprising: an interior support structure (20 fig 3C); only an outer membrane on each side of said interior support structure (12 fig 3C); and a substantially organic thermal insulation barrier between said outer membranes (24 fig 3C).

Regarding claim 13, Axsom discloses the area separation wall according to Claim 12, wherein said interior support structure includes at least two structurally independent interior support members (20 fig 3C).

Regarding claim 14, Axsom discloses the area separation wall according to Claim 13, wherein said structurally independent interior support members include a plurality of vertical members (20 fig 3C).

Regarding claim 15, Axsom discloses the area separation wall according to Claim 14, wherein said plurality of vertical members are spaced apart (20 fig 3C).

Regarding claim 19, Axsom discloses the area separation wall according to Claim 12, wherein each of said outer membranes are fire resistant wallboard (12 Fig 3C).

Regarding claim 20, Axsom discloses the area separation wall according to Claim 19, wherein said fire resistant wallboard is a gypsum wallboard (12 fig 3C).

Regarding claim 21, Axsom discloses the area separation wall according to Claim 20, wherein said gypsum wall board conforms to ASTM Test C-36-96 (12 fig 3 C).

Regarding claim 23, Axsom discloses the area separation wall according to Claim 12, wherein said substantially organic thermal insulation barrier is a natural material (24 fig 3C column 2 line 35).

Regarding claim 24, Axsom discloses the area separation wall according to Claim 23, wherein said natural material is cellulosic (24 fig 3C column 2 line 35).

Regarding claim 25, Axsom discloses the area separation wall according to Claim 12, wherein said substantially organic thermal insulation barrier is an acoustically non-conductive material (24 fig 3C column 2 line 35).

Claim Rejections - 35 USC § 103.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Don et al. US Patent 6,651,393 B2.

Regarding claim 5, Don et al. discloses the structure according to Claim 3, however, discloses that the stud (14 fig 5) are 12 foot lengths subsequently making the top and bottom plates 12 feet apart. It would have been obvious to one of ordinary skill in the

art at the time the invention was made to make the length of the stud members 10 feet in length or shorter because the length of the stud and hence the height of the wall is an obvious design choice.

Claims 12-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ojala US Patent 5,953,883.

Regarding claim 12, Ojala discloses a two-hour fire resistance rated, area separation wall for a structure, said area separation wall comprising: an interior support structure (57 fig 4) and a substantially organic thermal insulation barrier between said outer members (94 fig 4). Ojala only depicts the outer membrane on one face of the wall. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the outer membrane on each side of said interior support structure (110 fig 4) for use as an internal wall.

Regarding claim 13, Ojala discloses the area separation wall according to Claim 12, wherein said interior support structure includes at least two structurally independent interior support members (57 fig 4).

Regarding claim 14, Ojala discloses the area separation wall according to Claim 13, wherein said structurally independent interior support members include a plurality of vertical members (57 fig 4).

Regarding claim 15, Ojala discloses the area separation wall according to Claim 14, wherein said plurality of vertical members are spaced apart (57 fig 4).

Regarding claim 16, Ojala discloses the area separation wall according to Claim 15, wherein said plurality of vertical members are spaced apart however does not disclose that the vertical members are spaced apart by no more than about 16 inches. It would have been obvious to one of ordinary skill in the art at the time the invention was made to space the vertical members out no more than 16 inches apart because it is a well known design choice and common practice in the art to space vertical studs 16 inches apart.

Regarding claim 17, Ojala discloses the area separation wall according to Claim 14, wherein said plurality of vertical members further include cross bracing (70 fig 4) at about the mid height of said plurality of vertical members (57 fig 4).

Regarding claim 18, Ojala discloses the area separation wall according to Claim 13, further including a physical gap between said structurally independent interior support members (57 fig 4).

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Regarding claim 19, Ojala discloses the area separation wall according to Claim 12, wherein each of said outer membranes are fire resistant wallboard (110 fig 4 disclosed as gypsum wall board Column 9 line 30).

Regarding claim 20, Ojala discloses the he area separation wall according to Claim 19, wherein said fire resistant wallboard is a gypsum wallboard (110 fig 4 disclosed as gypsum wall board Column 9 line 30).

Regarding claim 21, Ojala discloses the area separation wall according to Claim 20, wherein said gypsum wall board conforms to ASTM Test C-36-96 (110 fig 4).

Regarding claim 22, Ojala discloses the area separation wall according to Claim 12, wherein said substantially organic thermal insulation barrier is selected from the group consisting of fibrous material, granular material, pellet material, aggregated material, agglomerated material and mixtures thereof (94 fig 4 disclosed as a cellulose insulation column 8 line 42). It is noted that cellulose insulation is well known to be a fibrous material.

Regarding claim 23, Ojala discloses the area separation wall according to Claim 12, wherein said substantially organic thermal insulation barrier is a natural material (94 fig 4 disclosed as a cellulose insulation column 8 line 42).

Regarding claim 24, Ojala discloses the area separation wall according to Claim 23, wherein said natural material is cellulosic (94 fig 4 disclosed as a cellulose insulation column 8 line 42).

Regarding claim 25, Ojala discloses the area separation wall according to Claim 12, wherein said substantially organic thermal insulation barrier is an acoustically non-conductive material (94 fig 4 disclosed as a cellulose insulation column 8 line 42).

Claims 26-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Don et al. US Patent 6,651,393 B2 in view of Ojala US Patent 5,953,883.

Regarding claim 26, Don et al. discloses a structure having a fire resistance rated, area separation wall, said structure comprising: a first building unit (A Supplied Figure 1); a second building unit (B Supplied Figure 1); and a two-hour fire resistance rated, area separation wall having only outer membranes (C Supplied Figure 1), said area separation wall including: (i) an interior support structure; (162 fig 13) (ii) only an outer membrane on each side of said interior support structure (164 fig 13); and (iii) a thermal insulation barrier between said outer membranes (166 fig 13); and a tying structure connecting said fire resistance rated, area separation wall to said first unit and said second unit (the wall structure shown in fig 13 would tie two adjacent units together). Don et al. does not disclose the insulation being an organic insulation. Ojala discloses an insulation that is an organic material (94 fig 4). It would have been obvious to one of

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ordinary skill in the art at the time the invention was made to use an organic insulation as taught by Ojala as an insulating material for the wall structure taught by Don et al. as to use an insulation that will not cause adverse effects on the environment.

Regarding claim 27, Don et al. in view of Ojala discloses the structure according to Claim 26, Don et al. further discloses wherein said tying structure includes a top plate (12 fig 5) attached to the top edge of said fire resistance rated, area separation wall and a bottom plate (12 fig 5) attached to the bottom edge of said fire resistance rated, area separation wall.

Regarding claim 28, Don et al. in view of Ojala discloses the structure according to Claim 27, Don et al. further discloses, wherein said tying structure and said top plate form s a double top plate (10 fig 5).

Regarding claim 29, Don et al. in view of Ojala discloses the structure according to Claim 27, however, Don et al. further discloses that the stud (14 fig 5) are 12 foot lengths subsequently making the top and bottom plates 12 feet apart. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the length of the stud members 10 feet in length or shorter because the length of the stud and hence the height of the wall is an obvious design choice.

Regarding claim 30-35, Don et al. in view of Ojala discloses the structure according to Claim 26 Don et al. further discloses wherein first and second building units that is a occupiable residential town homes (A and B Supplied Figure 1).

Regarding claim 36, Don et al. in view of Ojala discloses the structure according to Claim 26, Don et al. further discloses wherein said interior support structure includes at least two structurally independent interior support members (162 fig 13).

Regarding claim 37, Don et al. in view of Ojala discloses the structure according to Claim 36, Don et al. further discloses wherein said structurally independent interior support members include a plurality of vertical members (162 fig 13).

Regarding claim 38, Don et al. in view of Ojala discloses the structure according to Claim 37, wherein said plurality of vertical members are spaced apart (162 fig 13).

Regarding claim 39, Don et al. in view of Ojala discloses the structure according to Claim 38, Don et al. further discloses wherein said plurality of vertical members are spaced apart however Don et al. does not disclose that the vertical members are spaced apart by no more than about 16 inches. It would have been obvious to one of ordinary skill in the art at the time the invention was made to space the vertical members out no more than 16 inches apart because it is a well known design choice and common practice in the art to space vertical studs 16 inches apart.

Regarding claim 40, Don et al. in view of Ojala discloses the structure according to Claim 37, Don et al. further discloses wherein said plurality of vertical members further include cross bracing at about the mid height of said plurality of vertical members (66 fig 12). It is noted that if bracing was added to one embodiment of the wall structure it would have been obvious to one of ordinary skill at the time the invention was made to include bracing on all embodiments of the wall assembly.

Regarding claim 41, Don et al. in view of Ojala discloses the structure according to Claim 39, Don et al. further discloses further including a physical gap between said structurally independent interior support members (162 fig 13).

Regarding claim 42, Don et al. in view of Ojala discloses the structure according to Claim 26, Don et al. further discloses wherein each of said outer membranes is a fire resistant wallboard (164 fig 13 disclosed as gypsum wall board column 15 line 17).

Regarding claim 43, Don et al. in view of Ojala discloses the structure according to Claim 42, Don et al. further discloses wherein said fire resistant wallboard is a gypsum wallboard (164 fig 13 disclosed as gypsum wall board column 15 line 17).

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Regarding claim 44, Don et al. in view of Ojala discloses the structure according to Claim 43, Don et al. further discloses wherein said gypsum wallboard conforms to ASTM Test C-36-96 (164 fig 13 disclosed as gypsum wall board column 15 line 17).

Regarding claim 45, Don et al. in view of Ojala discloses the structure according to Claim 26, Ojala discloses an organic insulation wherein said substantially organic thermal insulation barrier is selected from the group consisting of fibrous material, granular material, pellet material, aggregated material, agglomerated material and mixtures thereof (94 fig 4 described as cellulose). It is noted that cellulose insulation is well known to be a fibrous material.

Regarding claim 46, Don et al. in view of Ojala discloses the structure according to Claim 26, Ojala further discloses wherein said substantially organic thermal insulation barrier is a natural material (94 fig 4 described as cellulose).

Regarding claim 47, Don et al. in view of Ojala discloses the structure according to Claim 46, Ojala further discloses wherein said natural material is cellulosic (94 fig 4 described as cellulose).

Regarding claim 48, Don et al. in view of Ojala discloses the structure according to Claim 26, wherein said substantially organic thermal insulation barrier is an acoustically non-conductive material (94 fig 4 described as cellulose).

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Conclusion

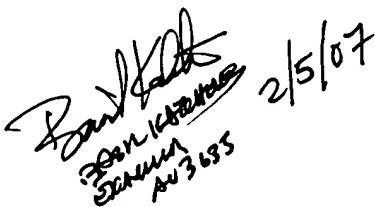
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan T. Junker whose telephone number is (571)272-4020. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on (571) 272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JTJ
2/1/2007



Carl Friedman
2/5/07
2007-168233
Examiner
Art Unit 3635

U.S. Patent

Nov. 25, 2003

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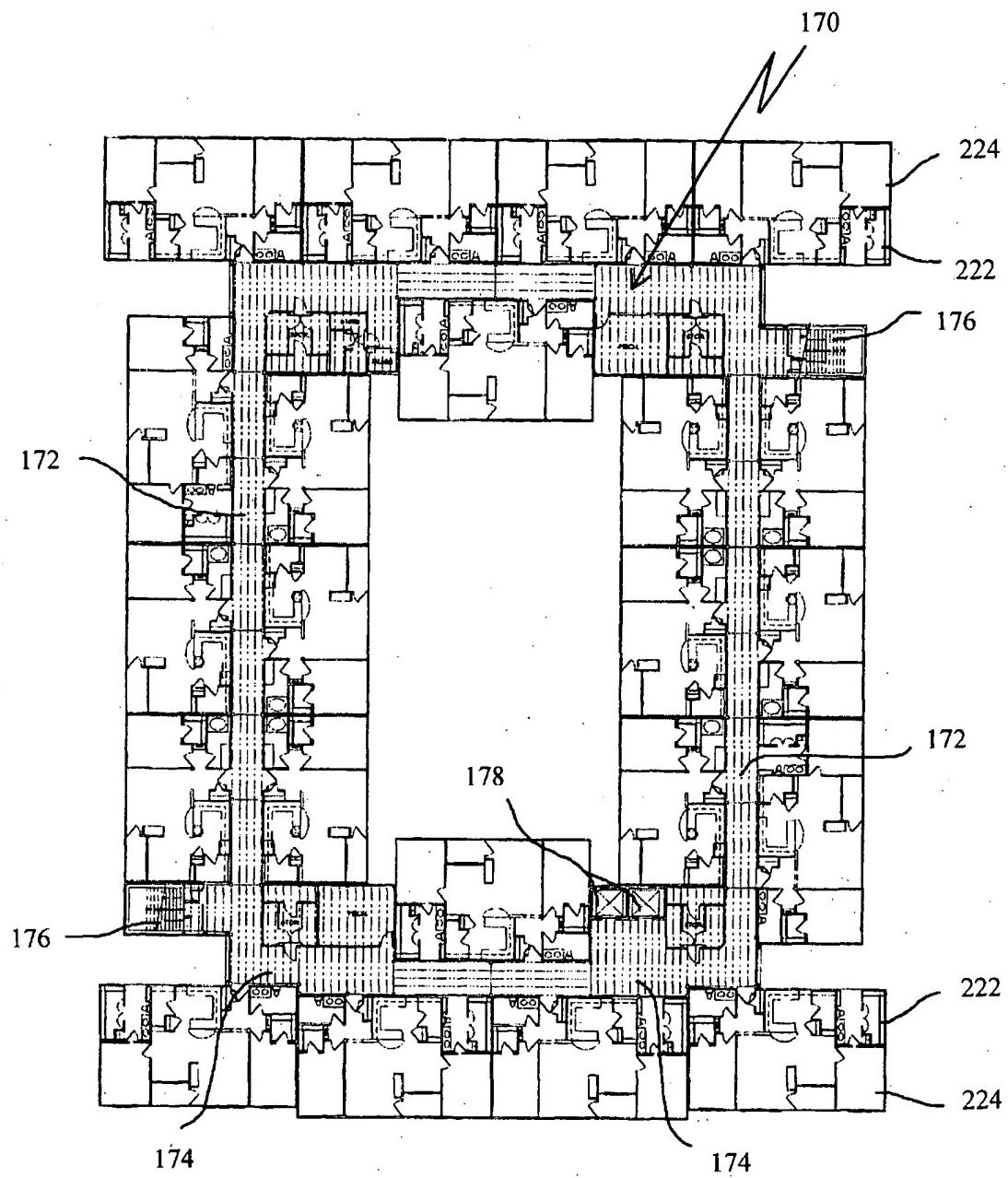


Fig 3